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ABSTRACT

This essay provides a historical review of articulation and transfer in the United States, and suggests trends for the future. First, the terms articulation and transfer are defined as the totality of services for students transferring throughout higher education and the formulas developed to exchange credits, courses, and curricula, respectively. Next, a historical review of developments in articulation is presented, focusing on the following five time periods: (1) the early decades from the turn of the century to the 1940s, reviewing the first junior colleges' relationship to senior institutions and high schools; (2) the 1950s and 1960s, highlighting the formation of national projects to improve articulation and increasing attention by state governments to transfer; (3) the 1970s, describing key works on trends and policies published in the decade; (4) the 1980s, reviewing issues related to access for disadvantaged populations, remediation, vocational-technical education, proprietary schools, and computerized information systems; and (5) the beginning of the 1990s, reviewing efforts to define a standard model for determining transfer rates. Finally, a summary is provided of the major changes evident in the historical analysis and trends for the future. Contains 105 references. (TGI)

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AN HISTORICAL AND FUTURISTIC PERSPECTIVE OF ARTICULATION AND TRANSFER IN THE UNITED STATES

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INTRODUCTION

Material in this essay is presented in two sections: historiography of articulation and transfer, and speculations on the future of that phenomenon in the United States.

The phenomenon has been given many definitions. Collaborative efforts among schools and colleges and mutual understanding among key leaders are common threads dominating the various interpretations. [See Menacker (1975) and the American Council on Education Guidelines (1983) for comprehensive statements].

The following comments, interpretations of the two key words, articulation and transfer, are offered to clarify the meaning of the words as repeated in the literature, not in the least to beg a useless academic debate. Articulation is viewed as the totality of services for students transferring throughout higher education. Transfer depicts the formulas developed to exchange credits, courses and curriculums. For more than 20 years I have used the word, "articulation," to refer to the development of a variety of procedures designed to provide a continuous smooth flow of students, all kinds of "transfers," vertical and horizontal, from grade to grade and school to school. "Transfer" connotes the mathematics of the interchange of credits.

In persisting over the years with these interpretations, I continue to stress the importance of attitude - commitment to the total

process - "...the willingness or reluctance of responsible people to enter voluntarily into cooperative planning agreements, placing the student ahead of administrative expediency." (Kintzer, 1973, p. 2). Success of the process depends on continued close interinstitutional communication and collaboration. Sacrificing or compromising an institutuional advantage is sometimes necessary to maintain a fair and flexible articulation/transfer system.

As responsibility for developing articulation/transfer policies continues to expand into political arenas involving many types of quasi-educational institutions and organizations, a positive attitude - willingness to collaborate - remains critically important.

Two types of bibliographic referencing conclude this essay: literature referenced in the five subsections, and literature classified as general bibliography. In both, citations are presented alphabetically. A few sources listed in the five subsections may have been published in another period. Some may appear twice, in the appropriate subsection and general bibliography. The most significant sources are asterisked in the time frame of publication.

The historical perspective is organized in five time periods: introduction and early decades; 1950s and 1960s; 1970s; 1980s; and a fifth time frame beginning 1990. Activities reported include major research and publications as well as conferences and meetings.

HISTORIOGRAPHY OF ARTICULATION AND TRANSFER

Early Decades

The story of articulation and transfer covers most of this century, beginning with well-known personalities, William Rainey Harper (as early as 1903), Charles McLane (1913), Alexis Lange (1916) and James Angell (1917), speaking and writing about the junior college as a part

of the public school system. By 1896, Harper had divided the undergraduate program of the University of Chicago into senior and junior college divisons, presaging transfer.

Virtually all early scholars, except Leonard Koos, Walter Eells and Floyd McDowell, concentrated almost entirely on the organization of the junior college. Were these new institutions elongated high schools, decapitated small colleges, or amputated senior colleges? These were Lange's references. (See Lange, 1917, in the sectional reference for the early decades). William Rainey Harper, in his prolific writing and lecturing, promoted the 6-4-4 plan. Angell, McLane, and other educational leaders of the day also preferred the "upward extension" pattern. Leonard Koos's book, Integrating High School and College: The Six-Four-Four Plan at Work, is the definitive statement on "upper-extension."

As Witt, Wattenbarger, Gollattscheck, and Suppiger document, the first junior colleges were lower-division segments of the University of Chicago (p. 13). Chapters 1-3 of that recent book provide a fascinating commentary on the early decades of junior colleges and the rise of the transfer function.

Ostensibly to encourage high schools to start college-level classes, the University of California began in 1907 to award a junior certificate authorizing completion of the first two years at UCBerkeley, marking the distinction between secondary and university education. The state legislature had appropriated funds for 1,000 students taking teacher training courses, and 250 taking junior college work similar to the first two years in the UCB College of Letters and Science. Applications were double the number of spaces available. "Of the 109 units required for the University's Junior Certificate, 45 could be

earned in the high school. In English and mathematics, it was possible to complete all of the Junior Certificate requirements before transferring..." (Ross, undated, p.145). By 1915, some 50 students had transferred to UCB from five extended high schools. Dean Alexis Lange was proud of these arrangements, and along with Stanford's president, Ray Lyman Wilbur, urged amputation of the university lower division. The university continued these affiliate arrangements until 1926. State legislation, dating 1921, gave legal status to this fascinating program.

The writings of Koos beginning in 1922 dominated the early scene. His classic two-volume work, The Junior College (1924) strongly influenced the development of junior-senior college relations. Research on the success of junior college graduates moving into universities was first published by Koos in those volumes (pp. 103-4). He concludes that JC students perform equally well as "regular" university students.

Frank Thomas's 1926 Stanford University dissertation, and a year later, his edited book on organization and administration; and William Proctor's, edited volume on "functions" in 1927 were valuable contributions to the unfolding school/college relationship. In Proctor's book, Walter Eells's chapter on "The Junior College Transfer in the University" addresses the continuing research question, "Is the junior college fulfilling its preparatory function?"

Finishing the decade of the 1920s, Frederick Whitney (1928) analyzed junior college functions using Koos's system of classification Of particular interest, is the fact that collegiate-type courses in the sciences and social sciences dominated the early junior college curriculums (Whitney, 1928, in Witt, Wattenbarger, Gollattscheck, and Suppiger, 1994, p. 45).

In the early '30s, Roy Brammell, a specialist in school

administration in the U.S. Office of Education, authored a comprehensive study on the relations between high schools and colleges. Results were more negative than positive. Brammell stressed the need "for more continuous attention to a student from the time [entering] the high school until the time [leaving] the university." (William Cooper, "Letter of Transmittal" in Brammell, 1932). The reference here to "articulation" as full services to transfers is also noted.

In the early decades, the transfer function was a comparatively simple enterprise confined almost entirely to the vertical transfer of high school graduates-to-junior colleges-to-universities. As clearly summarized in the recent work of Witt, et.al., 1994, both the transfer and terminal objectives of the new junior colleges were functioning. The authors further emphasize the leadership of Leonard Koos in defining these two purposes. The new junior colleges were viewed from various patterns of organizing years of schooling as extensions of high schools, part collegiate - part vocational-terminal. In actual operation, the collegiate function was limited to vertical transfer.

Floyd McDowell's dissertation completed in 1918 at the University of Iowa and published a year later was the first national study of junior colleges. Although reasons for the existence of junior colleges dominate McDowell's research, he refers to the collegiate function: "To meet the entrance requirements of professional schools" was rated in the middle range of responses by public junior college administrators. (McDowell, 1919, in Eells, 1931, pp.209-10). In a 1930 study of junior college catalogues, Doak Campbell further found that "college preparatory" and "pre-professional" courses far outnumbered other types of courses, suggesting a contining strengthening of the "collegiate purpose." (Campbell, in Eells, 1931, pp. 476-77).

John Sexon and John Harbeson (1946) accounted for the short-lived but historically significant four-year junior college. Another organization pattern, the upper-division or upper-level college, an alternative to "regular" (vertical) articulation/transfer, is found in about 10 states. (See Altman (1970) and Bell (1981) in General Bibliography).

Establishment of national commissions, private organizations and accrediting associations drew attention to articulation and transfer. The earliest of these influential groups was the NEA-appointed Committee on Secondary School Studies, popularly known as the Committee of Ten. One of the most significant results was the widespread adoption of the Carnegie unit that led to formulas for credit transfer. In 1910, a Committee of Nine on the Articulation of High School and College reaffirmed college preparation as a school responsibility.

National attention to school/college relations was revived by the publication of the Seventh Yearbook of the National Education Association's Department of Superintendence in 1929. The smooth upward movement of students was given comprehensive treatment. (Russell and Judd, 1940, p. 216).

Other commissions were created to continue some of the work of the Committee of Nine, the most important of which was the Commission on the Relation of School to College. Addressing the question of rigid versus unorthodox curriculum patterns, the resulting Eight Year Study, dated 1930, found that students taking deviant courses were more successful in college. (Menacker, 1975, pp. 16-17). This was probably the first sizable attempt to measure transfer student success.

The most important of the early national commissions created to study higher education was the Truman Commission. Published in 1947 in

a six-volume report, Higher Education for American Democracy, gave immediate attention to the two-year college - recommending expansion of the institution as an extension of high school. These junior colleges would offer the first half of the baccalaureate degree, as well as terminal, semiprofessional courses and public service for all citizens. This prestigious report gave immediate impetus to articulation and transfer. (See Witt, et al.(1994), Chapter 9, for more information about this historically influential document).

In the 1930s, accrediting associations began to broaden the examination of school credibility beyond college preparation, and professional agencies, notably the American Association of Collegiate Schools of Business which increased pressure for specialized courses to be carefully examined at the point of transfer. Achievement tests managed by the College Entrance Examination Board offered a degree of flexibility to the rigid external examination procedure. In the late 1950s, the American College Testing Program joined this highly competitive arena.

A lack of diversity in junior college curriculums was recognized as an inhibiting problem. CEEB and the Educational Testing Service, another new organization, set out to design examinations to identify both achievement at the end of the second college year as well as student aptitudes for further education. (For details, see Bogue, 1951, and studies by Walter Eells in 1949 Junior College Journal issues).

The G.I. Bill of Rights created an explosion of activities affecting school/college relations, encouraging flexibility through the GED testing program under the American Council on Education and the Advanced Placement Program announced in 1955 by the College Entrance Examination Board.

The stage was set for increased efforts to establish the junior college as a legitimate academic institution.

1950s and 1960s

The second time period in the historiography of articulation and transfer opened with the publication of Part 1 of The Fifty-fifth Yearbook of the National Society for the Study of Education, The Public Junior College. (1956). "Preparation for Advanced Study" (Chapter V) by Grace V. Bird is especially important. Describing the magnitude of the transfer function notably in California, Bird examined scores of success studies and concluded that "junior college transfers make records approximately the same as those made by transfers from four-year colleges and by native students, sometimes excelling slightly and sometimes being slightly excelled by the other groups. They usually show a drop in their grade average in the first term after transfer but then recover that loss." (p. 85).

Bird also referred to evidence that junior colleges were salvaging many students who otherwise would not have opportunities for advanced studies. She called for mutual understanding and cooperation in determining transfer policies.

A year later, a national committee was created by the Association of American Colleges and the American Association of Junior Colleges, and the next year, 1958, The American Association of Collegiate Registrars and Admissions Officers, headed by Clyde Vroman, joined the two associations to form the Joint Committee on Junior and Senior Colleges. Under the chairmanship of James Wattenbarger, the joint committee created a set of transfer guidelines. A year later (1959), the Joint Committee requested the University of California Berkeley Center

for the Study of Higher Education to develop studies on characteristics and transfer problems of junior college graduates. Two technical reports by Dorothy Knoell and Leland Medsker were published by the Center in 1963-64. A readers version, From Junior to Senior College, was published in 1965. A second printing was released in July 1966.

A series of state and regional conferences led to the National Project for Improvement of Articulation Between Two-Year and Four-Year Colleges directed by James Nelson. This Esso Foundation-supported effort resulted in the 1966 publication, Guidelines for Improving Articulation Between Junior and Senior Colleges. James Wattenbarger prepared the foreword describing the sequence of events.

Leland Medsker's book published in 1960, The Junior College: Progress and Prospect, carries extensive references to transfer student performance, retention and problems, and faculty attitudes. Medsker's description and evaluation of the junior college was one of a series of investigations emanating from UCBerkeley, sponsored by the Carnegie Corporation. This landmark contribution is the only early book on the two-year college to make more than cursory reference to articulation as here defined.

Returning to the Knoell-Medsker studies, the research methodology remains a standard for future investigations of those seeking to measure progress toward equal opportunity. The final chapter of From Junior to Senior College contains conclusions and implications drawn from the comprehensive investigations. This effort involving some 43 colleges in 10 states ranks with Leonard Koos's work some 40 years earlier as the most significant research conducted on the articulation/transfer phenomenon.

An 11-point summary found in Wattenbarger (1972) accounts for the

academic success of transfers supporting the earlier Bird findings, as well as the general inadequacy of articulation services, notably counseling. Knoell and Medsker further urged the development of state master plans to expand the discourse on academic as well as technical-occupational course transfer, and articulation services.

Transfer guidelines drafted from the Knoell-Medsker research were refined and revised in follow-up conferences in the 10 participating states, encouraging development of statewide intersegmental agreements.

Beyond High School (1968), a psychosociological study of 10,000 high school graduates by James Trent and Leland Medsker, remains one of the classic analyses of high school graduates and prospects of later life and success. As the title implies, the material goes far beyond transfer with examination of the different impacts of college and employment on values and attitudes (p. xx). This four-year longitudinal study was one of several conducted at the UCBerkeley Center for Research and Development in Higher Education.

Early state master plans lacked information on articulation and transfer. Nineteen analyzed by Hurlburt showed little attention to that phenomenon as a responsibility of state government. (Hurlburt, 1969). However, the Master Plan for Higher Education in California: 1960-1975 establishing a tripartite system in that state, recommended policies and procedures for intersegmental transfer. Sections on transfer in Chapter 5 strengthened the work of the California Articulation Conference, a volunteer system dating from a prototype created in 1919. (See Kintzer, 1968a and 1968b). The need to improve articulation services, counseling in particular, was also strongly documented in the California Master Plan, but implementation continued on a volunteer basis, not as state government responsibility. During the 1960s, similar intersegmental

volunteer efforts were also developing in Illinois, Michigan, and Washington under the initiative of the major universities in those states. Despite two legislative attempts to reduce some of its rather rigid policies, the California plan remains virtually unchanged.

Developments in four states presaged greater state government attention to articulation and transfer. In 1965-66, after 10 years of negotiations, the Florida State Board of Education approved an articulation agreement guaranteeing transfer student acceptance by all campuses in the university system, thereby placing responsibility within state government. The same year, the Illinois General Assembly passed the Junior College Act that included articulation policies and procedures in Sections 102-111. A statement in the 1964 Provisional Master Plan for Higher Education in Illinois provided impetus for the legislation that, in turn, established a legal base upon which to build a comprehensive plan.

By the mid-1970s, the Florida and Illinois agreements were in consistent use. The Florida Formal Agreement Plan was updated and reconfirmed in April 1971, and the Illinois Legal Based Plan was adopted by the Board of Higher Education on June 1 of that year. A third state, Georgia was progressing toward a core curriculum formula. By the Fall term 1969, the 90-quarter hour core gave transfer students equal opportunity to graduate from any of the public baccalaureate colleges and universities. A modified version was developing in Texas, and in 1968, the Texas Coordinating Board of the College and University System agreed to a set of general education requirements. Throughout the 1970s, many other states followed with recommendations for similar transfer formulas. Attention to articulation services was still minimal. (See Kintzer, 1976a, for details of these developments).

1970s

A Nationwide Pilot Study on Articulation, 15th in the ERIC Clearinghouse for Junior Colleges topical paper series prepared by Frederick Kintzer, was the first in a series of publications in this time frame devoted to articulation and transfer. The objective of the topical paper was to present summaries of articulation/transfer policies and procedures in the 50 states.

A preliminary typology of state styles was also offered. The typology was updated and expanded in several later publications.

College Transfer, the report of the The Airlie House Conference on College Transfer, highlighted the first half of the decade. The Conference held at the Warrenton, Virginia, Conference Center in December 1973, was sponsored by a number of public and private agencies, with major funding provided by the Carnegie Corporation, Exxon Foundation and the Federal Interagency Committee on Education. The organization called the Association Transfer Group (ATG) convened by the American Council on Education, was responding to recommendations of the Commission on Non-Traditional Study. That commission, created in 1971, was particularly involved with issues concerning the attempts of non-traditional or unconventional students to move through systems of higher education. (See Commission on Non-Traditional Learning, 1974, Chapter 2).

The six working papers presented at Airlie House represent the major contributions of the early 1970s. Diversity and breadth characterized the recommendations. Separate sets of suggestions were directed to faculties, institutional administrators, accrediting agencies and state agencies, to legislators and federal executive

agencies, and to national organizations. Conference discussions were primarily concerned with policies and methods to assist itinerant students in entering and reentering higher education systems. The primacy of institutions was emphasized, and so-called "third parties," beyond unilateral institutional efforts, were urged to assist. These included regional, state, national, and international agencies.

Warren Willingham's paper, "Transfer Standards and the Public Interest," warrants special reference. Willingham was concerned about the wide variation of student abilities at individual institutions. He characterized seven types of transfer students and charted the flow of these types among two- and four-year colleges. (Association Transfer Group, 1974, pp. 26-49).

A common element of all recommendations was the "conviction that institutional policies are usually the most serious barriers obstructing the individual who, for voluntary or involuntary reasons, wants to enroll in two or more educational institutions to complete an academic program." (Association Transfer Group, 1974, p. 2). Probably for the first time in a national forum, the entry and reentry of various transfer types were given serious and exhaustive consideration.

For a time after this unique ATG conference, articulation and transfer themes were aired in meetings around the country, but unfortunately, an evaluation of the group's accomplishments was not attempted.

Another strategic publication of the 1970s is Kintzer's Middleman in Higher Education (1973). "The Articulation Scene" (Part 2) introducing statewide patterns and the summary of policies in the 50 states is the major contribution. "The Canadian Scene" updates and expands the work of Gordon Campbell (1971) on articulation and transfer.

"Understanding Diverse Students," a product of the continuing series, New Directions for Community Colleges (No. 3, 1973, autumn) is another signficant publication in this time period. The focus of the several articles as described by Dorothy Knoell, editor, is "the education and guidance of students from widely varying backgrounds and with diverse interests and objectives." (p. vii). Like the ATG report, this contribution stretched the existing level of concern beyond the "regulars" - the traditional vertical transfers. (Also, see Kintzer, 1974).

Julius Menacker (1975) was the first to deal explicitly with problems of horizontal articulation, e.g., curricular integration, general education style within a level of schooling; guidance-centered articulation as the focus of vertical articulation; atypical needs of minority students, and other topics theretofore mentioned by authors, but unexplored.

Credentialing Educational Accomplishment (1978) edited by Jerry Miller and Olive Mills, climaxed a two-year study by an ACE task force. This is the first book to deal comprehensively with the educational and social implications of credits, certificates, diplomas, and degrees. The 13 recommendations are directed toward institutional alliances rather than favoring state policy mandates.

The nine-year period ended with the 1979 (number 4) issue of New Directions for Experiential Learning, "Transferring Experiential Credit." Edited by S.V. Martorana and Eileen Kuhns, the 11-article volume accounts for gaps associated with credit for extrainstitutional or experiential learning, and the increasing portability of such credit.

1980s

Several reports of national importance and the second edition of Guidelines for Improving Articulation Between Community/Junior and Senior Colleges (1983) developed by the joint task force of six national associations were significant contributions among a rapidly growing number of published studies found in the literature of the 1980s. Several of these publications will be briefly reviewed chronologically. During this time frame, the work of Richard Richardson and associates also signaled the developing interest in helping minorities achieve degrees and "building bridges."

The first volume in the series, number 39 of the New Directions for Community Colleges series, Frederick Kintzer, editor (1982), was released during a period of economic constraints, increasing pressure from state governments, and competition among senior institutions to enroll ever greater numbers of transfers. Diminishing numbers of traditional transfer age cohorts added to the restive situation. Several years earlier, John Lombardi had predicted this period of unrest in one of his valued monographs, "The Decline of Transfer Education." (1979. (See sectional bibliography).

The goal of the Kintzer volume was to open a new era of revitalizing articulation and transfer through dialogue among national leaders. Material in the first three chapters identified existing tensions and alternative directions. The first two chapters, Dorothy Knoell's "The Transfer Function - One of Many," and Gerald Kissler's "Decline of the Transfer Function," have been frequently cited. In the final chapter, James Palmer summarizes recent ERIC documents on A/T. The extensive chapter on bibliography includes a number of studies on

the performance of transfer students released between 1977 and 1981.

The second edition of Guidelines developed by a joint task force of six associations closely follows the pattern of the initial 1967 publication. More attention is given in the second edition to problems encountered by reverse transfers, interinstitutional and intersegmental transfers, and other more recently identified groups. The final chapter includes sections on foreign institutions and validation of extrainstitutional and experiential learning..

Two studies by Richard Richardson and associates are also significant contributions: the 1980 report of academic persistence and degree attainment of three groups of students at Arizona universities, and a three-year case study examining the decline of literacy in community colleges and possible resolutions. The latter signaled the mounting pressure to accommodate unserved groups in higher education. (See sectional bibliography).

The Articulation/Transfer Phenomenon: Patterns and Directions a 1985 AACJC publication by Frederick Kintzer and James Wattenbarger, continues a typology of four state patterns of A/T agreements, preceded by a synopsis of the transfer situation, and followed by a glimpse of formal and informal credit transfer arrangements in other countries that, at least on paper, are beginning to supplement the traditional entrance examination as the only route to higher education.

The typology discussed in the 1985 Kintzer/Wattenbarger publication had initially been outlined by Kintzer in 1972, and updated in 1973 and 1976b. Four categories of agreements were identified and characterized, and all states were listed under at least one of the four categories. Only an outline of the 1985 typology is shown here.

Taxonomy of Statewide A/T Agreements (1985)

Formal and Legally Based Guidelines and Policies

Characteristics: (1) breadth of general education acceptable for transfer; (2) emphasis on completion of the associate degree prior to transfer; (3) Inclusion of articulation services; and (4) legal or quasi-level status, i.e., state law (at least, in part), state education code, or master plan. (Approximately eight states, e.g., Florida Formal Agreement Plan, Illinois Legally-Based plan).

State System Policies

Characteristics: (1) concentration on the transfer process, less on articulation services; (2) states assert stronger and more direct control; (3) increased attention in universtiy/ community college systems to coordinated planning and transfer guides, e.g., Kentucky and Nevada. (Approximately 25 states, e.g., New Jersey Full Faith-and-Credit Policy, Oklahoma State System Plan).

Voluntary Agreements Among Institutions

Characteristics: (1) informal processes, voluntary cooperation and negotiation, (2) subject matter and intersegmental liaison committees. (Approximately 20 states, e.g., California Articulation Plan, Washington Intercollege Relations Commission Guidelines).

Special Agreements on Vocational/Technical Tredit Transfer

(See Bushnell, 1978 and Parnell, 1990). (Approximately five states, e.g., North Carolina Health Articulation Project, Michigan Mandated Policies - K-12, area centers, community colleges).

The transfer potential of upper-division/upper-level universities, referred to as a "natural" relationship between universities and

community colleges, is also included in the Kintzer/Wattenbarger monograph.

Five trends and directions in articulation and transfer leading into the next century were gaining recognition.

Access to Higher Education for Disadvantaged Populations

The first continuing theme is the focus on efforts across the country to improve the scope and individual numbers of disadvantaged groups moving through state systems, with an emphasis on ethnic minorities. State support, in general, continues to lag for increasing minority involvement and for improving programmatic quality. Best progress is still occurring in individual colleges with considerable help from private funding agencies.

The Ford Foundation-sponsored Urban Community College Transfer Opportunity Program (UCC/TOP) led the upsurge of activities. The two-phase program began in September 1983, with one-year grants given to 24 colleges in 13 states. A diversity of activities resulted. Phase two, beginning October 1984, included five of the original group of community colleges where activities of greater comprehension were additionally funded. These urban districts concentrated on academic partnerships with universities and curriculum development projects with high schools. Faculty development and information data systems were improved.

An AACJC publication, Transfer: Making It Work, (1987) by Richard Donovan and associates, offers recommendations in five areas identified by the UCC/TOP colleges. Innovative examples of programs confirmed that best progress in improving access for disadvantaged groups was occurring in individual colleges.

A plethora of collaborative programs was initiated throughout the 1980s by community colleges and universities, alike. The Higher

Education Linkage Program (HELP) began at the University of Arizona to improve opportunities primarily for minority students from Pima Community Colleges and Cochise College. HELP, funded by the Mellon Foundation, includes early admission status, priority housing, orientation, dual advising and other articulation services.

The STEP program (Science and Technology Entry Program). Developed by the Regents of SUNY, includes both public and private education, allowing junior and senior institutions to compete for grants to help economically disadvantaged secondary school students and ethnic minorities. SEEK is the acronym for a similar program at Hunter College, CUNY.

Improving access to higher education for low- and moderately-achieving high school students, many of whom are ethnic minorities, has indeed gained national attention. At least four states, Florida, Minnesota, New York, and Oklahoma have announced high school/college current enrollment models. Although not a new practice, such collaborative efforts expanded considerably with Ford Foundation help in Tennessee and Illinois. This contributed to the rising interest in perfecting a common transfer number equation - a controversial direction to be discussed later.

Remediation

As community colleges and universities become heavily involved in remediation, issues centering on quality and equality appeared. Assessment of basic communication skills, often required for placement and periodic achievement testing, became state-mandated. Under university pressure, state legislatures or state commissions are requiring university exemption from remediation. Community colleges progressively become solely responsible. Boldest advances are currently

recognized intersegmentally, e.g., partnerships including high school/college/university faculty collaboration. UCC/TOP projects serve as remediation models. The "Learning to Learn" program for poorly qualified students jointly launched by Roxbury Community College and Boston College is one of many examples.

The Florida statewide assessment program is legislatively mandated. Remediation is required in both the state university and community college systems. Apparently, all remedial education is currently being shifted to the state's high schools.

Collaborative efforts are underway in perhaps a dozen states. Intersegmental faculty groups are defining college-prep basic skill competencies. A national task force, The National Assessment of Educational Progress, Project Equality, and prominent test publishers are providing a wide variety of materials to state commissions and agencies.

Vocational-Technical Education

Several decades ago, virtually the only transfer avenue for vocational-technical credits was the university baccalauraate degree. Programmatic diversification and flexible delivery schedules to compensate for static academic enrollments and budgets in both two- and four-year colleges attracted career-oriented high school graduates, and other potential transfers. A research report by David Bushnell who identified early transfer agreements primarily between high schools and community colleges in a dozen states, and the efforts of the National Occupational Competency Testing Institute which created written and performance examinations, gave impetus to interinstitutional negotiations. The Bushnell publication is listed in the 1970 sectional reference.

Dale Parnell, the most visable single personality in promoting cooperative V-T programs, gave national recognition to the 2 + 2 tech-prep/associate degree format. In his 1985 book, The Neglected Majority, Parnell refers to 2 + 2 as the high school/community college connection, the way to make winners of ordinary students. Organizational core models for four-year programs are presented in Chapter 7. Dateline 2000: The New Higher Education Agenda (1990) introduces new themes under the goal of serving "at-risk" populations. Discussion of the emerging global community is an added feature of Parnell's second book.

Business and Industry, the Military, and Proprietary Schools

Employer-sponsored education, proprietary school training and instruction for the military provided externally by colleges and universities should be seriously considered in the history of articulation and transfer. As the first two "outsiders," business and industry and proprietary schools, were granted accreditation by regional agencies and began to form legitimate linkages with state and private institutions, the need for guidelines and policies became crucial. State governments and responsible agencies are particularly vulnerable when corporate colleges and proprietary institutes achieve the right to receive and export transfer students and to offer degrees. Several states have developed such statements, but the courses in degree programs and students wanting to transfer remain virtually unrecognized.

A formidable array of courses, including degrees, is now offered by corporations large and small, labor unions, professional organizations, and agencies at all levels of government. Students regularly approach college and university admissions personnel for articulation and transfer privileges. The second version of the Fenwick

Guide to Campus-Business Linkage Programs (1986) contains over 300 campus-business linkages. The degree and certificate combinations are tied to accredited institutions, most frequently community colleges. Clues for preparing guidelines and policies for higher education/corporate education may be found in the Eurich book. Institutions as well as states should seek the services of the American Council on Education Center for Adult Learning and Educational Credentials. One of the functions of the center is to determine credit equivalencies for various types of extra-institutional learning - learning attained outside the sponsorship of legally authorized and accredited postsecondary institutions. The ACE center has three major programs that focus on credit equivalencies for extra-institutional learning. For example, The Military Evaluations Program directed by Eugene J. Sullivan, publishes biennially A Guide to the Evaluation of Educational Experiences in the Armed Forces - a standard reference used in counseling servicemembers and veterans.

The Program on Noncollegiate-Sponsored Instruction (PONSI), directed by Sylvia W. Galloway, is designed to help adults obtain academic credit for learning obtained outside colleges and universities.in classes sponsored by business and industry, labor unions, governmental agencies and other organizations. not granted degrees. The Credit by Examination Program that evaluates tests and testing programs includes a computerized validated system where individuals "bank credits earned in industry-sponsored settings. A national external degree program is now being developed. (Contact Henry A. Spille, ACE vice president).

The Urban Whitaker book, Assessing Learning, (1989) is the definitive document on standards, principles and procedures of adult and

experiential learning. (See General Bibliography).

The Servicemembers Opportunity Colleges (SOC) organized in the early 1970s by AASCU and AACC has developed as a unique civilian-military partnership that, at present, includes about 1200 "opportunity colleges," the Department of Defense, Military Services, and the National Guard. Credit courses, based on a set of principles developed from SOC criteria, are offered by member institutions, culminating in certificates, diplomas and degrees - from associate to graduate degrees. Servicemembers who cannot participate in residence degree work can transfer with military based-earned credits and enroll temporarily in member institutions near military bases, or through the Navy program, in any member college or university. Institutions agree on course comparability and assure transfer to other member schools. Graduates can enter upper-division without penalty, but only general educational portions of the SOCAD (associate degree) programs are transferable.

The American Association of State Colleges and Universities (ASSCU)) is the fiscal and administrative agency for the SOC consortium. DANTES (Defense Activity for Non-Traditional Educational Support) is the contract monitor for the Department of Defense. (For further information, contact David R. Eyler, Associate Director, SOC, AASCU Offices, Washington, DC).

Relationships between proprietary schools and counterparts in public education - community colleges - remain strained. Some attempt to work together and to exchange students can be traced to individual institutions, but again, transfer agreements are virtually non-existent. Maryland is one of the few states to announce a transfer policy related to proprietary schools and community colleges. (See sectional reference for broad guidelines that precede the policy statements in the Maryland

policy statement). Such matters as monitoring proprietary school courses, determining course comparability, and directions for course evaluations are given in detail. Proprietary school students can now earn credits toward A.A. degrees in Maryland.

Computerized Information Systems

Colleges and universities are still criticized for collecting and distributing invalid and unreliable student data - transfer data in particular. This chaotic situation confuses state commissions whose reports to state legislatures are often inaccurate and inconsistent. Although all institutions and systems collect relevant information, few have data bases that provide current transfer information on students, counselors, and faculty, or reliable information on student tracking. The lack of common definition and consistent reporting complicates the budgetary process and weakens attempts to develop statewide policy.

Compensating efforts, including the FIPSE-funded project, began in four states, Arizona, California, Colorado, and New Mexico, to establish on-line student information systems allowing students direct access to credit and course transfer. The California microcomputer ASSIST program is used in the state-funded Transfer Center System located in community colleges and the two university systems. In Arizona, Maricopa Community College District developed a course equivalency/degree audit program for its digital VAC computers. Colorado State University is using a configuration of soft- and hardware (IDNS/R and IVM 4381).

The Miami-Dade Advisement and Graduation Information System (AGIS) has been widely publicized and emulated. AGIS is a computer based system used to monitor student progress proceeding through the various degree programs. (See Schinoff and Kelly, in Kintzer, 1982, pp.73-74). The Florida College Recommended Courses outline is another component.

This outline provides students and faculty advisors a listing of courses suggested for transfers by the public and private universities. A special AGIS report allows students to match records instantaneously against any of the A.A. degree transfer outlines.

Despite these efforts, valid and reliable reporting of transfer numbers remains an isolated activity. Further progress culminating in a model for deriving transfer rates will be reviewed later.

Two additional contributions to the A/T literature should be mentioned to complete the 1980s. The Cohen and Brawer book, The Collegiate Function of Community Colleges (1987), another in a long list of related publications by these prolific and assiduous authors, is a comprehensive examination of articulation and transfer primarily from a liberal arts education perspective.

In Chapter 9, "Strengthening the Collegiate Connection," Cohen and Brawer discuss several reasons why the transfer function of community colleges should be maintained. Without it, "the community college would take on the form of a neighborhood adult school or occupational training center, thereby reducing its societal value and its support base." However, they also suggest that the terms "transfer program" and "transfer courses" should be abandoned because these popular references "confound student behavior and course content." (p. 172). Chapter titles, bibliography and index references are remindful of the scope of the Menacker volume a decade earlier (1975) . These two volumes, Menacker and Cohen and Brawer, provide comprehensive summaries of articulation and transfer in the respective decades represented.

Enhancing Articulation and Transfer, the 1988 New Directions for Community Colleges series volume number 61 edited by Carolyn Prager, accounts for the intervention of private foundations, state

legislations, and interstate commissions, and gives particular attention to improvement of community college academic studies. In the final chapter, the editor focuses on transfer options for occupational-technical students. She refers to a "climate of negativity" surrounding the limited literature of community college vocationalism, citing policy barriers and offering several suggestions for improving "the other transfer degree" (pp. 79-80).

Beginning 1990

The final decade of the century was opened auspiciously with an announcement by the AACJC Board of Directors declaring 1990 as the "Year of the Transfer." Two publications are primary references: a report of a research project funded by the Ford Foundation, Transfer, Articulation, Collaboration: Twenty-Five Years Later, directed by Dorothy Knoell, and a volume edited by Louis Bender: Spotlight on the Transfer Function: A National Study of State Policies and Practices.

The "twenty-five years later" research directed by Dorothy Knoell grew from a mid-1980s Ford Foundation-funded national study to reexamine the 1961-64 Knoell-Medsker study. The two efforts, 25 years apart, were actually quite different. The first focused on institutional rather than state practices, and on student rather than institutional data. The two studies also differed on the nature of assisting personnel and criteria of effectiveness. (Knoell, 1990, p. 5).

In the statement of general principles, a distinction is made between transfer and articulation, in part, to accommodate for the greatly increased complexity of the process of exchanging students and credits. Transfer is recognized "...as the process of reviewing and

admitting applicants for advanced standing, and articulation ...the process of aligning courses and programs that are offered by two or more institutions." (p. 78).

A national advisory committee established by the receiving agency, the California Postsecondary Education Commission, assisted in planning and conducting the 11-state analysis of transfer and articulation. A panel of experts assisted Dorothy Knoell in developing a set of "National Guidelines for Transfer and Articulation" that follows the final chapter. The guidelines, in the author's words, "are [to be] viewed as a companion to the earlier guidelines [published originally in 1966 and re-studied in 1983] and should not supplant them." (p.77). Concluding sections on data bases and information systems, assessment and affirmative action and educational equity, indicate changes in the breadth and magnitude of the A/T phenomenon.

The second volume in the AACJC series, Spotlight on the Transfer Function, edited by Louis Bender, consists of seven papers covering state-level policies including a model of state-level articulation information, and case reports of successful transfer and articulation in four states. In Part 1, an idealized model of state-level articluation information systems is described by William Odum. Part 2 offers a series of case studies in three states, New Jersey, Florida, and California, where universities are collaborating with community colleges.

Returning to the final paragraph in the 1980s subsection on the continuing need for uniform transfer numbers reporting, we refer again to the NCAAT transfer study. Community college centers at George Mason and UCLA were major contributors. The goal of the two-year college transfer project was to define methodology for calculating transfer

rates. NCAAT personnel were responsible for reporting various transfer strategies among two- and four-year institutions, how transfer students were identified and how transfer rates were established. The George Mason Center for Community College Education (James Palmer, director at that time) gathered information on processes involved in obtaining transfer numbers and determining the validity of such calculations. The UCLA Center for the Study of Community Colleges (Arthur Cohen, director) concentrated on defining and calculating a common transfer rate for all two-year colleges.

A model for deriving transfer rates first introduced at a Transfer Assembly called by AACJC in April 1991, was explained in more detail by Cohen in a 1994 monograph: "...all students entering the two-year college in a given year who have no prior college experience and who complete at least 12 college credit units, divided into the number of that group who take one or more classes at a university within four years." (Cohen, 1994, p. 73).

While acknowledging limitations of formula drawing, Cohen indicates in the above monograph what a definition should and should not contain. He presents a convincing case for the indispensable need for data collected uniformally across the states. For evidence of university superiority in awarding baccalaureates to transfer students, see Astin (1993), and Orfield and Paul (1992). Research studies testing elements of the Transfer Assembly report have appeared in the literature. For example, findings of a dissertation summarized in a recent issue of the Community College Quarterly of Research and Practice suggest that agreements formalized by state legislatures or agencies could improve articulation and transfer. Such agreements "...would require colleges to offer a full range of student services [counseling services] and to

establish a set of core courses ...that would transfer to several nearby senior institutions." (Banks, 1994, p. 257). This is a valuable piece of evidence for scholars and practitioners.

A chapter in the Cohen-edited monograph (1994:1) by Judith Eaton supports the Cohen/Brawer (1987) endorsement of the "collegiate function." Reasons for returning the collegiate function to a dominant role in the community college mission, which she refers to as difficult and controversial, are presented in detail in her 1994 book, Strengthening Collegiate Education in Community Colleges. She stresses college-level competencies as a key commitment. Her definition of the collegiate function incorporates a commitment to applied fields or career education in addition to the liberal arts. The college-level criterion should, in her judgment, be applied to both academic and career (occupational) education (p.3).

Several other reports concentrating on articulation and transfer deserve attention. The first is the Kintzer (1989, March) review of current literature on statewide and interinstitutional models and trends prepared for the New Jersey Department of Higher Education. The five A/T directions summarized in the present document are explained in more detail in the New Jersey report.

The second document (June 1991) prepared by Debra Banks and Gayle Byock, is an analysis of the UCLA/Ford Foundation-sponsored Transfer Alliance Program. Issues examined in the TAP program initiated at UCLA in 1985, include access for minority students, institutional commitment to transfer education, and inter- and intrainstitutional linkages. Twelve colleges in Los Angeles county participated along with the university.

The third resource is James Palmer's "What Do We Know About

Transfer?", a working paper released in April 1991 by the National Center. Palmer summarizes the characteristics of community college students most likely to transfer. Research, Palmer recommends, should be intensified on the success variables identified.

SPECULATIONS ON THE FUTURE

Under five time frames, we have accounted for the major developments throughout the 90-year history of published material on articulation and transfer, describing the transitions from simple transfer arrangements, often dictated by universities, to complex documents involving many types of transfer applicants and a wide variety of educational and noneducational organizations.

The following statements serve two purposes: to summarize changes in the articulation/transfer phenomenon as shown by the literature, and to suggest trends:

1. State governments are continuing to mandate tests and testing procedures as bases for first admission of transfers and advance credit.

2. State legislatures, through commissions and agencies of government, are endorsing, even mandating, policies and procedures to control articulation and transfer. Public institutions are pressured for greater prescription.

3. Demand is mounting for fixed formulas for reporting transfer numbers for state reimbursement. While the need for regularizing data is widely accepted, the wisdom of a fixed formula and the acceptance of announced equations remains under heavy debate.

4. Equal access for under-represented groups is a national priority - given impetus by private funding sources.

5. Strengthening associate degrees has also become a national priority, as responsibility for remediation has shifted in

practice from universities to community colleges.

6. High school/community college relations are expanding through 2+2 programs, and extending into universities through 2+2+2 arrangements.

7. Greater attention is being given to services for transfer students in statewide formulas and individual agreements. Statewide articulation officer associations are valuable in this regard.

8. Informal transfer alliances with employer-sponsored institutes are rapidly developing, but formal alliances, e.g., integrated degree programs, are emerging very slowly.

9. Proprietary school/community college collaboration remains virtually unattended.

10. Policies on credit transfer for experiential (prior) learning are appearing, as well as formal schooling for the military and various types of continuing education.

Authors specializing in the articulation and transfer phenomenon have identified an aggregate of at least a dozen types of transfer students: the "regulars" (vertical and horizontal academics), including intercollege/interuniversity, intrastate, stopouts, dropdowns or reverse, double reverse transfers and vocational-technical majors. Several classifications of so-called nontraditional types complete the list: those transferring credits from experience, the military and other quasi-educational and noneducational sources, the poorly prepared, the underserved, and those physically or psychologically disadvantaged. To these complex and interrelated groupings must be added a global range of international transfers for whom only cursory attention is currently shown. Commercial "credit-counters" continue to reap a financial harvest as institutional and accrediting agency policy lags.

A closing thought from Richard Millard is directed to policy makers and practitioners who wish to improve articulation and transfer: "Given student mobility and the range of postsecondary opportunities available, transfer of credit should be based not on formal institutional peer-group equivalence but on substantive knowledge and competency attained and should be assessed in the light of student and institutional objectives in the program into which the student is transferring." (Millard, 1991, p. 65).

Need we be reminded that a college education is no longer just a privilege. As viewed by the millions across the land and around the world, it is a right not to be denied.

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